North Carolina Forest Service

FORESTRY Leaflets

July 2012 *FM-17*

Managing and Regenerating Timber in Bottomland Swamps

History

North Carolina has prime examples of high-quality and productive bottomland hardwood and cypress swamps. These swamps have provided a sustainable source of timber products and wood fiber for more than 200 years, and served as a foundation for the creation of the forest products industry in much of North Carolina. The forests of North Carolina, including hard-to-access bottomland swamps, have been harvested in multiple cycles since the settlement of the state in colonial times. Practically-speaking, it is inconceivable that any appreciable amount of "old growth" or "virgin" timber remains in North Carolina's swamps, simply due to the numerous harvest cycles that have been conducted through history.

The Basics of Bottomland Swamp Forests

A diversity of forest tree species are adapted to grow in bottomland swamps. Tree species that are most frequently found in North Carolina's swamps include *(alphabetically)*:

- Baldcypress
- Black willow
- Cherrybark oak
- Green ash
- Red maple
- River birch
- Swamp blackgum / Water tupelo
- Swamp chestnut oak
- Sweetgum
- Sycamore
- Yellow-poplar

However, that is not to say that you should expect to see all of these species in every bottomland swamp. On the contrary, the trees in some bottomland swamps can be predominately comprised of only a few species. In addition, North Carolina's diversity of soils and topography promotes a diverse range in the types of bottomland swamps. The types of bottomland swamps most often found in North Carolina include *(alphabetically):*

- Black River Bottom: Bottomland areas of major river systems that originate in the coastal plain.
- Branch Bottom: Relatively flat areas along small river systems that remain boggy throughout the year.
- Muck Swamp: Broad, expansive and very-poorly drained areas often with standing water, usually with lots of organic matter in the soil.
- Piedmont Bottomland: Upstream bottomlands of a Red River Bottom.
- Red River Bottom: Bottomland areas of major river systems that originate in the piedmont or mountains.

Forest Management of Swamps

Management of a bottomland swamp forest is relatively passive and occurs over a much longer timeframe when compared with pine or upland hardwood forest areas. This long timeframe is mainly due to the relatively slower growth cycle of timber in a swamp. Once the new stand of trees has successfully regenerated in the swamp, there is usually little need to conduct intermediate stand treatments (such as thinning or burning) that might otherwise be suitable on pine or upland hardwood forests. Implementing a carefully planned and executed swamp timber harvest in a manner that minimizes soil and water impacts has shown to be the practical and viable prescription for forest management in bottomland/cypress swamps. Forest owners are strongly encouraged to keep all records, paperwork, plans, photos and other documentation related to the ownership and management of their forestland, especially for the bottomland swamp areas. Because managing bottomlands occurs over such a long period of time, an individual or outside observer may never actually see management being done, even though the forestland is continuing to be owned and managed for the purposes of sustainable forestry.